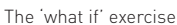


Where could we intervene positively?



LEKSHMY PARAMESWARAN and **LASZLO HERCZEGH** are co-founders of Fuelfor (www.fuelfor.net), an innovation design consultancy based in Barcelona and specialising in healthcare innovation. With over 13 years of collective experience in healthcare, they have designed research, products, services and innovation strategies for healthcare clients in the USA, Europe and Asia.

Healthy Region Cuneo

Seamless transformation of a local health system through collaborative innovation

HEALTHY REGION CUNEO IS A HEALTHCARE INNOVATION PROJECT THAT WAS INITIATED IN THE SUMMER OF 2008 FOR THE ITALIAN REGIONAL HEALTH SYSTEM OF ASL CN1. THE PROJECT PROPOSED NEW DESIGN STRATEGIES AND SOLUTIONS THAT ADDRESSED THE LOCAL HEALTHCARE NEEDS OF THE CITIZENS AND CARE PROVIDERS OF THE REGION OF CUNEO. CONDUCTED WITHIN THE FRAMEWORK OF TORINO WORLD DESIGN CAPITAL 2008 (TWDC) AND ITS INTERNATIONAL SUMMER SCHOOL PROGRAM, AND LED BY THE INNOVATION DESIGN CONSULTANCY FUELFOR, THE PROJECT CREATED AN INNOVATION OPPORTUNITY THROUGH PUBLIC, COMMERCIAL AND ACADEMIC COLLABORATION. IT ALSO SHOWCASED THE VALUE OF DESIGN AS A STRATEGIC AND TRANSFORMATIVE TOOL; USING RESEARCH TO UNDERSTAND THE HEALTH ISSUES OF LOCAL STAKEHOLDERS AND CONTEXTS, DESIGN THINKING TO IDENTIFY INNOVATION OPPORTUNITIES, AND DESIGN SKILLS TO TRANSFORM THESE OPPORTUNITIES INTO SUSTAINABLE HEALTHCARE PROPOSITIONS THAT HARNESS LOCAL RESOURCES.

Project background | Designing Connected Places

International Summer School Program

Designing Connected Places: Places, Identities and Sustainable Development was an international summer school that was held from 13 to 29 July, in the Castello di Pollenzo, in the framework of Torino World Design Capital 2008. The TWDC program is promoted by the

International Design Alliance (IDA) and conducted by ICSID (International Council of Societies of Industrial Design) who select a local territory for development through a combination of innovation and creativity.¹ Due to its design, culture, craft and industrial heritage Torino has been chosen as World Design Capital for 2008.

1. www.torinoworlddesigncapital.it.

The summer school was organised as a series of six one-week workshops that examined a general theme, design for local development, applying it to six emerging problems in the area of Torino as identified by local client organisations: health, mobility, security, food networks, the representation of the city, and distributed production systems. Each workshop was led by select international designers so as to form collaboration between academia, industry and local authorities.

The main objectives of the summer school program were to apply design as a catalyst for social innovation, using local resources and addressing local needs, to create an integrated 'model of action' for the area and to leverage the potential of design to articulate proposals for sustainable change. In addition, the intention was to create a unique and memorable experience in local development for the workshop participants and local partners, and to create a concrete case study of a new field of design.

The Active Welfare Workshop

The local issues around health and wellbeing were addressed through a creative workshop called Active Welfare; a six-day event involving 30 invited international design students and practitioners from almost 10 different countries.

The workshop sought to define Active Welfare for Cuneo and its citizens. It introduced a research-driven innovation approach, with specific activities and tools, to develop design skills for local development: techniques for understanding local stakeholder needs and gathering contextual insights, mechanisms for translating needs into design strategies and visualization techniques to effectively communicate new socially innovative solutions.

Working on a real assignment for a real client with clear ambitions, vision and challenges provided the participants with the chance to develop professional experience and practical skills within a project context; learning how to collaborate with designers from different backgrounds, developing client communication and listening skills, as well as demanding the formulation of clear arguments for

design decisions and creating feasible future propositions for a specific local context.

Project team

Fuelfor worked with a local project team from the department of industrial design at the Politecnico di Milano, who was able to assist with local coordination and client communication, as well as support with the planning and co-facilitation of the workshop. Their experience of researching specific healthcare technologies through academic-industry liaison brought another useful perspective to the workshop.

In addition, a team from Bruce Mau Design in Chicago was invited as keynote speakers and to lead the local context mapping activities. Their studio is working on a new urban plan for the city of Chicago, called the Chicago Project. Several key topics, including health, are being investigated through an architectural design and urban planning approach, looking at how the city can support the wellness of its citizens. The parallels with the Active Welfare workshop objectives were strong and yet complimentary, tackling similar issues albeit on a larger scale and with a different design approach. Sharing their project process and outcomes with the workshop participants served as inspiration to the workshop process.

The local healthcare client team comprised multiple disciplines: the ASL CN1 general manager, several regional clinical specialists delivering care to obese and rehabilitation patients, quality of care experts and a representative from the IT infrastructure team dealing with access to care for citizens. They worked closely with the core design team from the preparation to the execution phase of the workshop. This proved essential to developing a shared understanding of the brief and opportunity, as it was the first time the client team had worked with designers.

The Brief I defining the problem

The global healthcare crisis

It is no exaggeration to state that the healthcare industry is in crisis. The population is increasingly grey and afflicted

with chronic diseases. Traditional models of healthcare are breaking down and being challenged. Clinical teams are facing increased pressure to perform more efficiently, consistently and safely to deliver improved outcomes. Hospital management teams face impossible choices to balance the cost and quality of care. Meanwhile patients and their families are increasingly anxious, having been given the responsibility for their own health and facing an overwhelming choice in a fragmented care landscape.²

These issues have impact on a global, regional as well as individual and personal level. Citizens, governments, local authorities, healthcare providers and payers are all grappling with the complexity of this changing healthcare context, trying to address the need for systemic change and yet still struggling to identify sustainable innovation strategies. This situation generates exciting opportunities for research-based design to support and facilitate innovation.

The local healthcare client ambition

The Italian region of Cuneo is rethinking its health system faced with similar challenges as appear in the global healthcare landscape. The Cuneo local health agency, ASL CN1, plans to move from multiple sites of care offering overlapping services, to a hub-and-spokes model where facilities of clinical excellence provide specialist services coordinated centrally. These specialist health facilities are then connected to the population via a networked system linking citizens to appropriate care through hospitals, outpatient clinics and GP offices throughout the region.

The brief was defined through a series of client team interviews, collaborative work sessions with key client team members and a visit to the town of Fossano and its hospital identified as the site for the project research. Reviewing a list of healthcare topics based upon the global trends in health and wellbeing for the developed world, the client

team were asked to identify the issues that were considered of priority for their regional health system with regard to economic, clinical or social challenges. In this way three themes were selected as focus for the workshop: Obesity, Rehabilitation and Access to Care. Cuneo's population density is relatively low and geographically scattered, unhealthy lifestyle habits contribute to the rise in chronic diseases and rehabilitation and chronic disease management are a knock-on challenge in the region.

Project question: How can we activate local citizens to participate in creating their own well-being, addressing both preventative health as well as chronic disease management?

Theme 1: Obesity I Making healthy lifestyle choices

Obesity in Europe has reached epidemic proportions and reports of a similar situation come in from the developed and rapidly developing worlds. An increasingly sedentary lifestyle, greater availability of cheaper food coupled with limited access for some populations to affordable healthy food options are just some of the reasons why obesity is becoming an critical health issue. The Cuneo region is representative in its numbers of obese and severely obese people, as well as with the challenges it faces along with other health systems of finding suitable strategies to address the issue.

Combating obesity is not as simple as just finding ways for people to reduce their food intake; it's about the balance of the body through input but also expenditure of energy. It takes into account their lifestyle, living context, social context and mindset. Social stigma poses an additional challenge in dealing with the condition, as individuals, societies and even clinical professionals can be judgmental towards obese people due to cultural perceptions of the condition. In this theme we explored an holistic approach

2. Michael E. Porter; Elizabeth Olmsted Teisberg (2006). *Redefining Health Care: Creating Value-based Competition on Results*. Boston: Harvard Business School Press.

to strategies that can address this spectrum of issues, considering healthy lifestyle and the healthcare journey that includes the city where an active lifestyle can take place.

Some questions included:

- How can we define obesity in a more holistic way, considering also the psychosocial, clinical as well as cultural aspects of living with the condition?
- What obstacles and enablers do people confront when challenged with adopting healthier choices in their lifestyle?

Theme 2: Rehabilitation | Getting your life back after a health event

The incidence of chronic disease is rising globally. The local region of Cuneo is no exception, it faces an increasing demand for rehabilitation services to serve not only its large proportion of elderly citizens who are more prone to such acute health events, but also other age groups who may also require rehabilitation services for example after a road traffic accident or sports injury.

Rehabilitation after an acute health event, such as a car accident, stroke or heart attack can involve rebuilding a person on many levels: psychologically, physically, socially, and physiologically. Depending on the life stage and circumstances of each person, care may need to be delivered in a variety of ways to meet their specific needs and lifestyle. This poses a challenge for the local healthcare system, balancing resources to serve the needs of the regional population while addressing the specific needs of the individual for optimal care. Shifting care from hospital to home can help alleviate this tension, but comes with its own challenges as the individual, their family and the community are faced with the responsibility to take an active role in their rehabilitation.

In this theme we considered how to approach rehabilitation care services in an holistic and sustainable way, considering the healthcare journey from in-hospital care to returning back to daily life at home. Some questions included:

- If people play an active role in their own rehabilitation, what are the implications for rehabilitation services in the region?
- How can people discover how rehabilitation can be integrated into *their* everyday life?

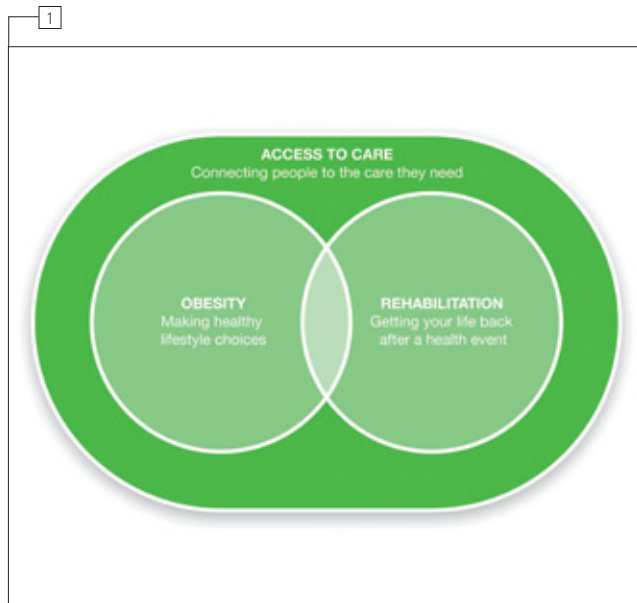
Theme 3: Access to Care | Connecting people to the care they need

The theme of access to care is particularly relevant for the region of Cuneo that is under consideration for this workshop. It is a region with over 200 municipalities, geographically widespread to create a relatively low density of inhabitants. Many communities have a high proportion of elderly people for whom mobility can be an additional limitation and therefore access to care services, though in demand, is often not easy to achieve.

Access is considered as involving information and advice provision, as well as opportunities to book consultations with health professionals. In Italy, by law, this service needs to be delivered on a regional level effectively and efficiently. The local region of Cuneo is facing a challenge as it attempts to transform its system of healthcare access; their vision is for a networked infrastructure of healthcare touch points, in hospitals, out-patient clinics, GP offices and pharmacies.

This theme considered access to care within the context of the Obesity and Rehabilitation themes, using these health scenarios as a vehicle to understand the underlying issues for patients and providers in using and deploying an effective access system to the local healthcare services. Some questions included:

- How do local people experience accessing the regional healthcare system today?
- What opportunities exist for improving this experience, through new touch points or new processes?

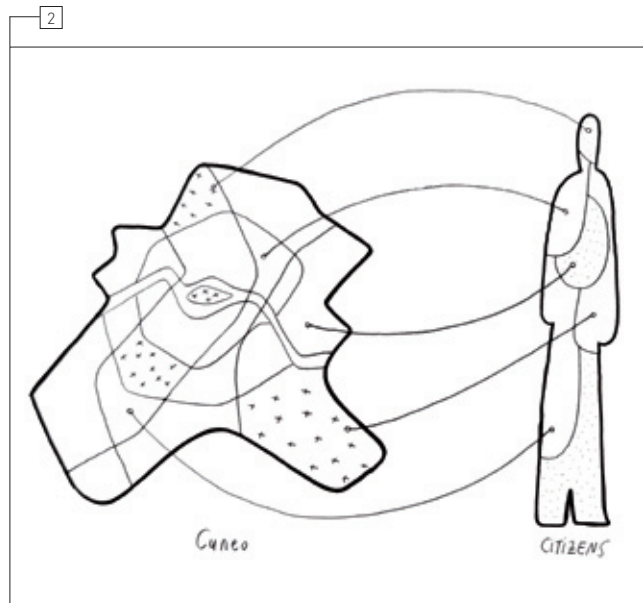


1. The relationship between the workshop themes of obesity, rehabilitation and access to care.

Innovation approach

Health can be thought of as an extra curricula activity in most people's lives, at times seen as a stigmatized topic that one dare not address. Giving people a sense of control over their health and wellbeing can be empowering. Citizens do not stop being citizens when they fall ill, in fact they and their loved ones may seek extra support from their local community and the environment in which they live. Healthcare providers are challenged with delivering quality of care beyond the physical space of the hospital or clinic. The design of the urban infrastructure could be developed alongside new healthcare products and services, to enhance both this sense of citizen empowerment and in support of providers to deliver continuity of care in the community. The project therefore called for an innovation approach that could serve several levels of health care.

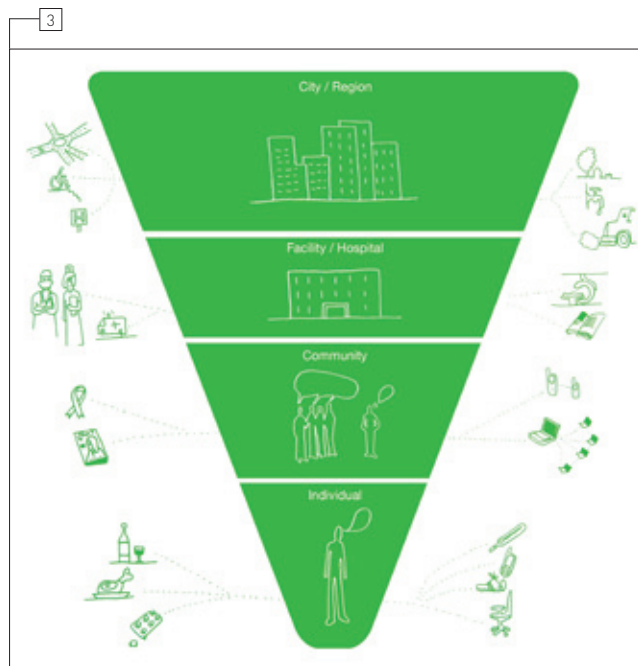
Addressing the needs of multiple healthcare stakeholders around a health issue and building an holistic model of health can offer the chance for realistic, effective and sustainable innovation. The client ambition created an opportunity to rethink the relationship and impact between Cuneo's citizens'



2. Exploring the relationship between personal health of the citizen and the urban landscape.

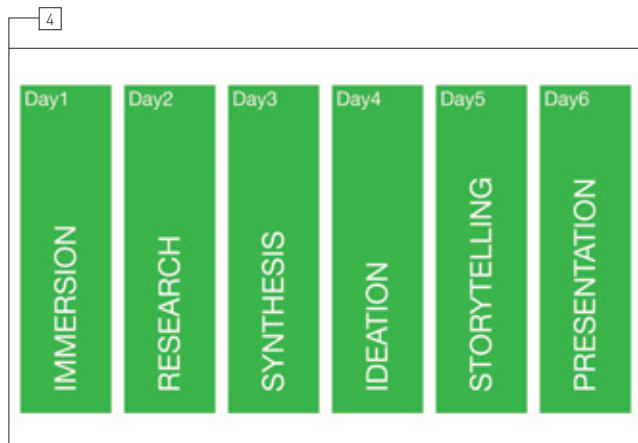
health and wellbeing and the local area. Initial inspiration came from the idea of a 'health check up' for the region of Cuneo; understanding the health issues, needs and attitudes of its citizens and care givers in relation to the local context, including infrastructure, culture and assets.

Developing this idea further led to the creation of an innovation framework that was then used throughout the workshop, from initial briefing to proposition communication. It allowed for a complete landscape of care opportunities to be considered in a structured and clear way, helping to unpack the complexity of the local healthcare context. It allowed the personal health of a citizen to be considered alongside issues that occur on a community, facility or urban level. For example, the issue of a lack of green spaces or limited wheelchair access in the town and the need for physical rehabilitation in the community. The framework forced the bandwidth of innovation possibilities to be stretched and challenged, encouraging integrated solutions that could offer systemic change. An additional benefit lay in creating a shared language between the participants and clients, a common mental model of the innovation territory to which the teams could refer.



3. An innovation framework was designed to address health issues from a personal to regional level, opening up the possibility for systemic innovation and transformation.

Project process



4. The Active Welfare 6-day workshop process

Preparation – Defining project boundaries and framework

Designing the workshop process and tools, and the local research activities became the focus of this phase over a 2-3 month period. A project plan was created in partnership with the local project team to manage expectations and plan around the team agendas. Regular Skype video

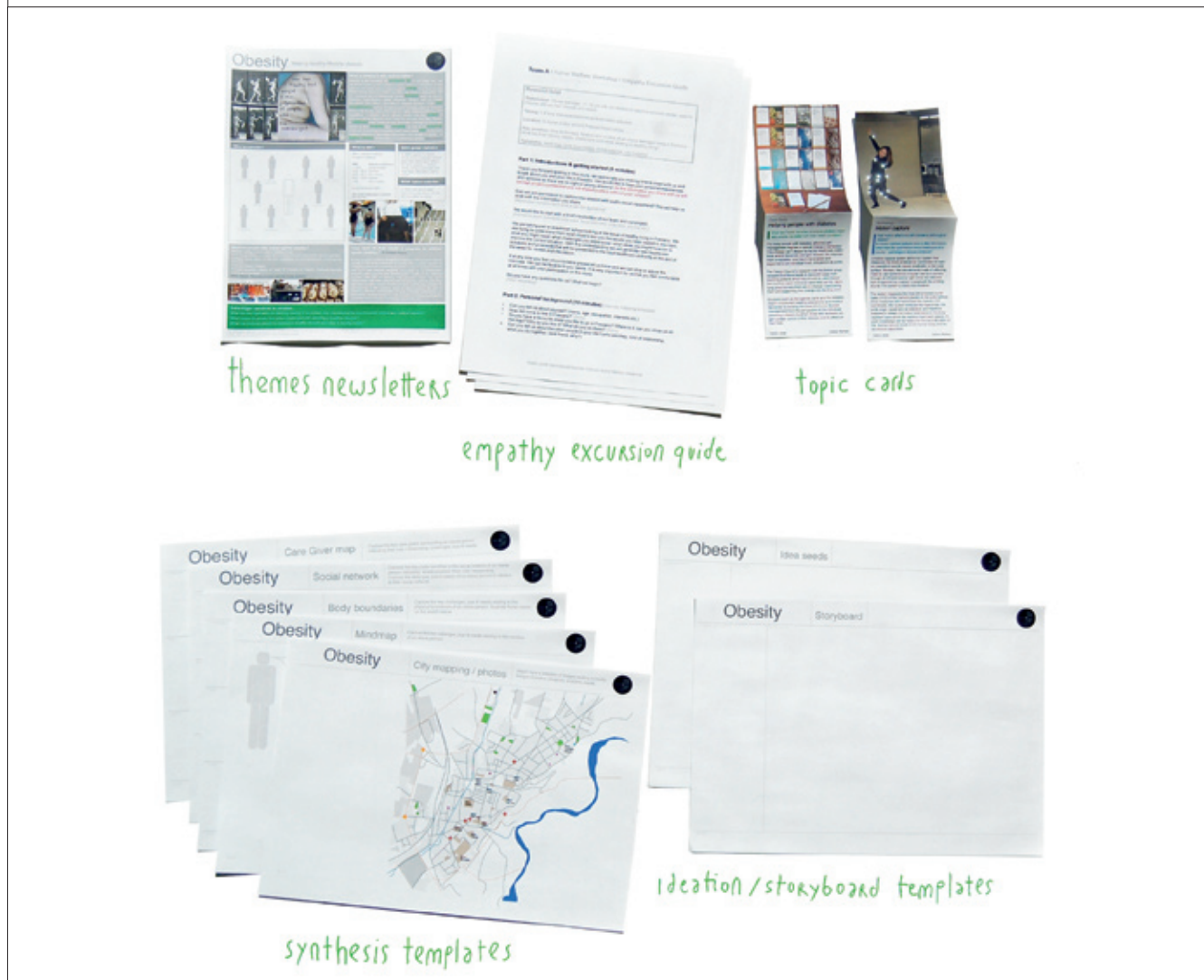
conferences were held between FuelFor and the local project team to stay aligned and updated on progress, offering the chance to fine-tune the planning and strategy as the project progressed.

The client needs were assessed through work sessions and an important first visit to the Fossano Hospital site to meet key clinical stakeholders in person and define the scope and logistics for the workshop. Several weeks of work followed to recruit respondents, set up specific research activities with relevant local citizens and stakeholders, arrange permissions for audio and video recording, create research tools and guidelines and coordinate an agenda whereby several workshop teams could work in parallel to understand the local healthcare needs effectively in the time available.

The result of this phase of the project was a detailed research plan agreed with local stakeholders to allow the workshop participants to carry out in-depth research activities in Fossano and Mondovì on the second day of the workshop. In addition, the workshop process and tools were designed, including inspirational materials as well as templates and guidelines for research and design activities. The participants were sent a link to the workshop website, especially created to give them background information on the project as well as a simple warm-up exercise to get into the topic of health and wellbeing. They were divided into teams in such a way that through the workshop activities they would be able to work with different people and tackle different aspects of the issues in order to collectively address the complexity of the innovation landscape.

This preparation phase was critical for the success of the project since the workshop would require participants to achieve meaningful results in only six days. For many this would be the first project in the healthcare space and in the local Italian context; the preparation work helped reduced risks, pre-select information and package it in a digestible way through a workshop process that could lead people through to the required result without stifling their creativity and initiative.

5



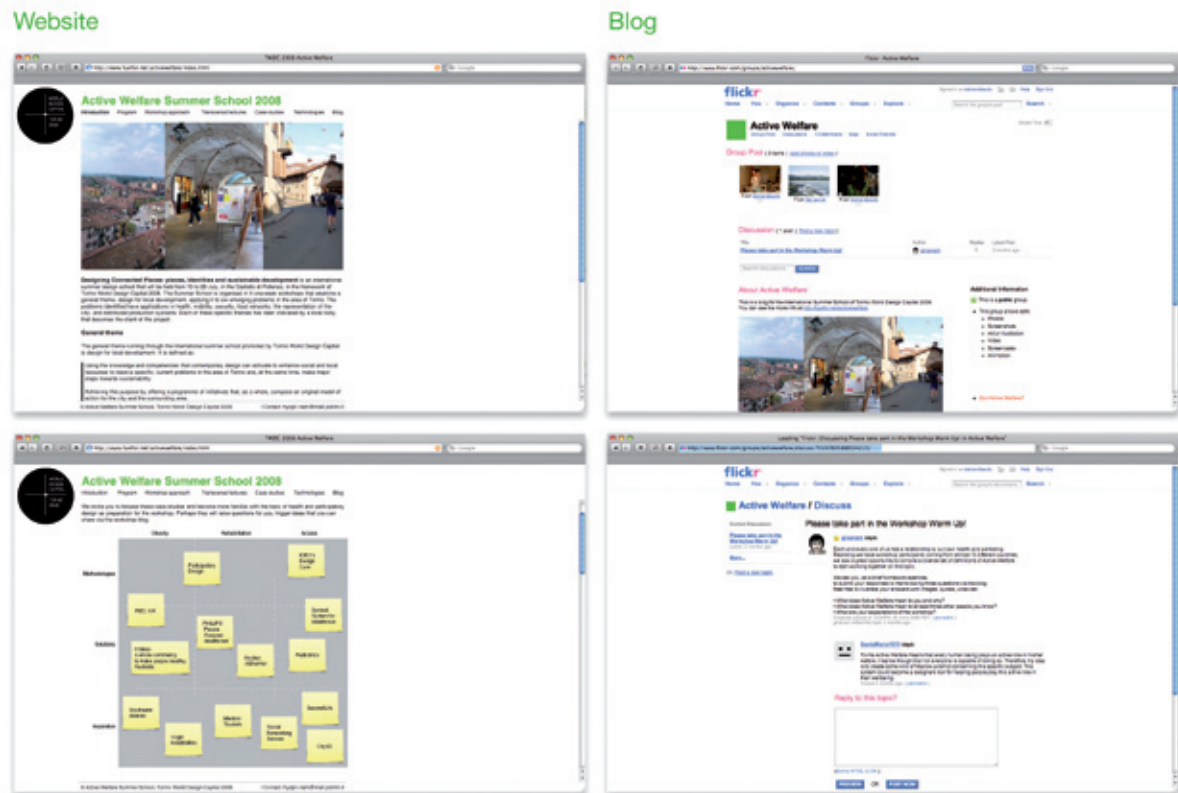
5. Workshop tools were created to inspire ideas and thinking, capture and communicate research findings as well as to articulate new ideas.

Workshop Day1 | Immersion

On the first day of the workshop participants were invited to define Active Welfare for themselves and as a team. They began discovering the selected health topics of Obesity, Rehabilitation and Access to Care working in teams. They realized what they already knew and what not and most importantly became familiar with working together. It was important to design briefing materials that were accessible and digestible, such as newsletters and websites. This enabled participants to relate to the topics on a personal level and to feel comfortable and engaged with the subject, quickly. Processing and absorbing the briefing materials,

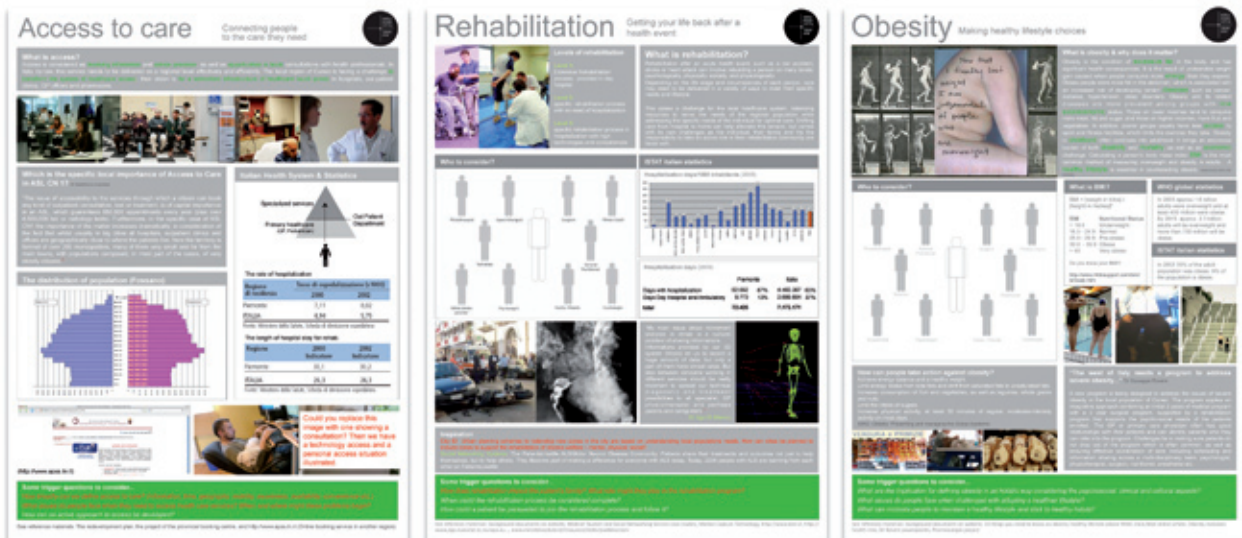
participants challenged them, debated the content, enriched it with their own knowledge and formulated their own opinions and research questions. The aim was to foster curiosity about the subject, to inspire the research activities for Day 2. Bruce Mau Design gave a triggering keynote presentation about the Chicago Project as added inspiration and food for thought. The result of this day were a set of posters where teams had sketched the issues and needs of local citizens in relation to the health topics being investigated. This helped to visualize and communicate their existing assumptions and help participants step into the shoes of local citizens before meeting them in person on Day 2.

6



6. A website, blog and newsletter were some of the tools created to help participants become immersed in the subject of health and wellbeing and the local situation.

7



7. Theme newsletters for Obesity, Access to care and Rehabilitation compiled relevant factual information condensed in a one page newsletter format.

Workshop Day 2 | Empathy excursions

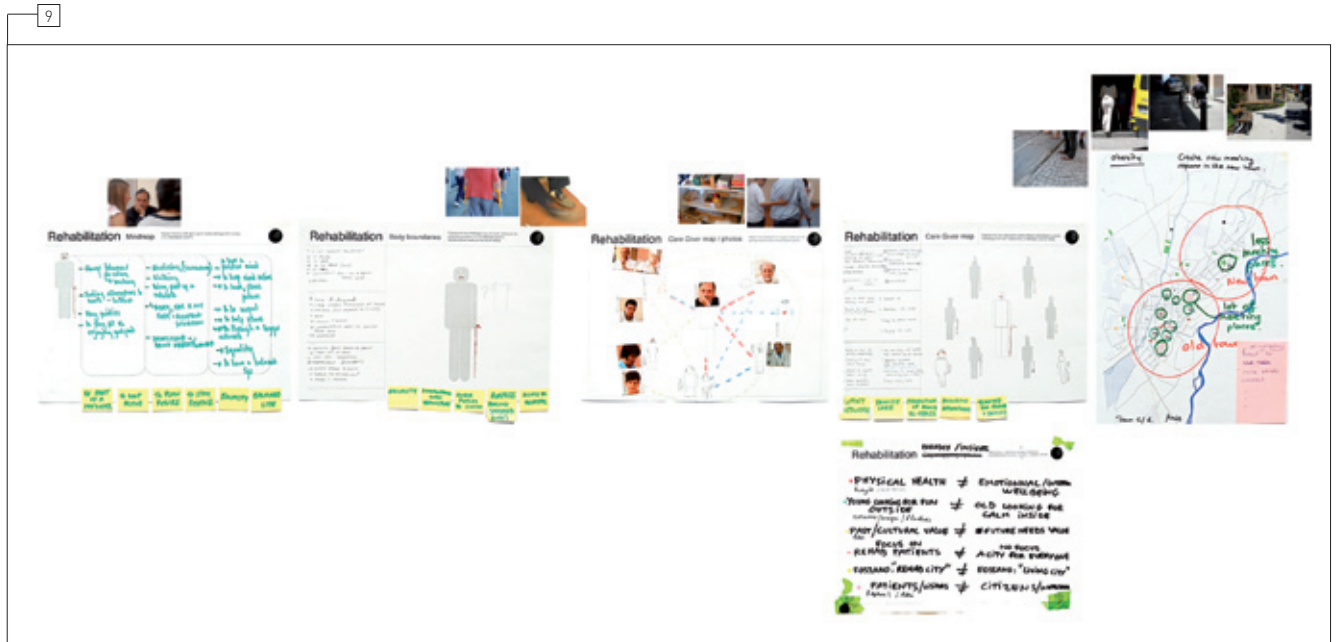
The aim of the empathy excursions was to provide opportunity for participants to engage first hand with local people in their context, providing a crucial reference point for innovation design. The challenge lay in capturing a 360 degrees insight into the local context and people in just one day. To tackle this, participants were divided into eight teams of 3-5 people led by one core workshop team member with each team tackling a specific aspect of a topic. For example, the in-hospital experience of rehabilitation or the urban landscape in relation to healthy lifestyle. Teams carried out a series of parallel activities in Fossano and

Mondovi including interviews, mapping, shadowing and observation work with citizens, patients and their families and clinical care teams. They visited two hospitals, a rehabilitation centre, general practitioners office, pharmacy and a booking centre where health appointments and payments are made. They were instructed to listen carefully, observe behaviours and activities, understand issues and needs using research guidelines and templates designed to support them. The result of this day was a set of findings documented through written notes, sketches, photos and video and a team of participants with a first hand experience of the local health context.

8



8. Teams of 3-5 participants carried out participatory research activities with multiple stakeholders in different local settings – in hospitals, clinics, in the city and on the street – to gather rich and diverse perspectives on health and wellbeing.



9. Synthesis activities were carried out to compile relevant research insights from a variety of stakeholders and contexts, creating a richer picture of the local health issues.

Workshop Day3 | Synthesis

The teams working on each health topic organized their collective findings, and began to extract key insights using a set of templates that designed to capture the most relevant information in a consistent and shareable format. They looked for connections between findings from other teams working on the same topic, identified synergies and conflicts. They shared their synthesized research findings with other teams working on the same topic as well as with teams working on other topics. The result was a more complete image of the issues and needs from a multiple stakeholder perspective and taking into account the personal, community, facility and urban context. This body of knowledge formed the basis of the design brief for each topic.

Workshop day 4 | Identifying opportunity hot spots

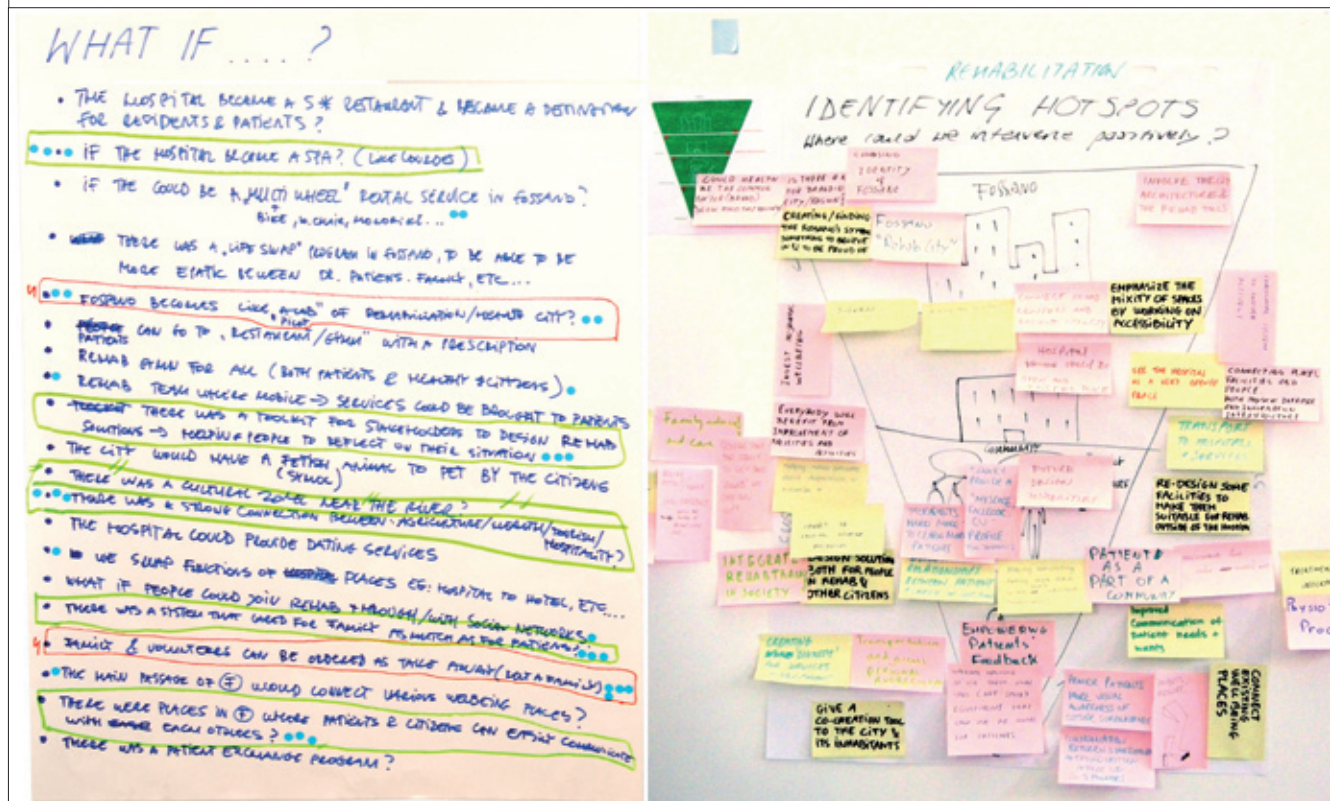
Day 4 was a key transition moment from research insights to ideas and solutions. There were no quantifiable criteria used to select opportunity areas, rather an intuitive leap based on the team's understanding of the issues discovered and the client's ambition. The client teams were invited to review the synthesized research findings and opportunities identified. Their feedback was valuable at this stage before

ideation, to confirm priorities and possible strategic direction to explore. Based on the collective results of the research phase, the teams started a group brainstorm session of 'what if' scenarios to address some of the needs / issues identified. These 'what if's' can be considered as concept seeds or opportunity areas, verbally expressed and listed to allow for opportunity ideas to be built upon by team members. Each team member had three votes for the most compelling 'what if' scenarios from the long list generated together. By filtering the opportunity areas in this way, each team ended up with 10-15 scenarios, which became the starting point for further concept generation. The opportunities were mapped back onto the innovation framework, to be able to see if they addressed several levels of the innovation territory.

Workshop day 5 | Ideation

A full and free day of individual sketching and ideation around the selected opportunity areas, combined with sharing moments within the team to discuss and build upon each others ideas. Clustering concepts according to similar themes or ideas that were emerging allowed teams to identify a common design strategy and final concept directions. Technology trigger cards and selected case studies were used as inspiration and stimulus for creativity.

10



10. An intuitive leap from understanding to identifying opportunities is facilitated by the 'what if' exercise and checked against the innovation framework to ensure broad and deep coverage of the innovation territory.

11



11. Clustering ideas to identify concept directions

Workshop day 6 | Storytelling

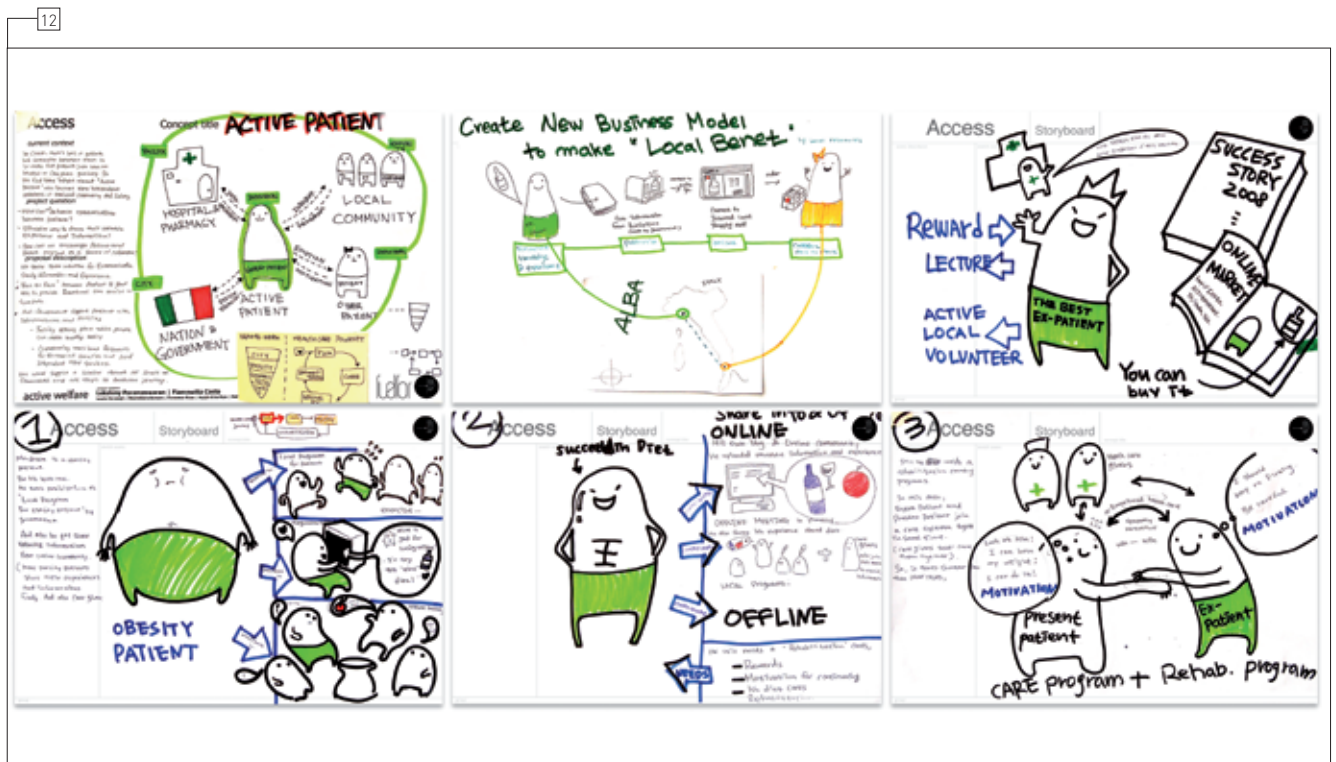
Participants were able to choose which concept direction they wanted to work on further. This ensured commitment to finalizing the concept presentation in the short time available. Teams were asked to create a storyline to describe the future proposition in a clear and compelling way, through the lens of a patient, family member or care provider. In this way seven stories were created. It was much easier to communicate a solution through a story, rather than showcase concept elements or design solutions. Each story showed how the region of Cuneo could transform to a healthier region, where the citizens health needs are addressed through a holistic care program stretching from the personal to the urban / policy level. The client team was invited to attend the final presentation, providing feedback to the teams who were briefed to present their proposition clearly and concisely in ten minutes per story.

Results

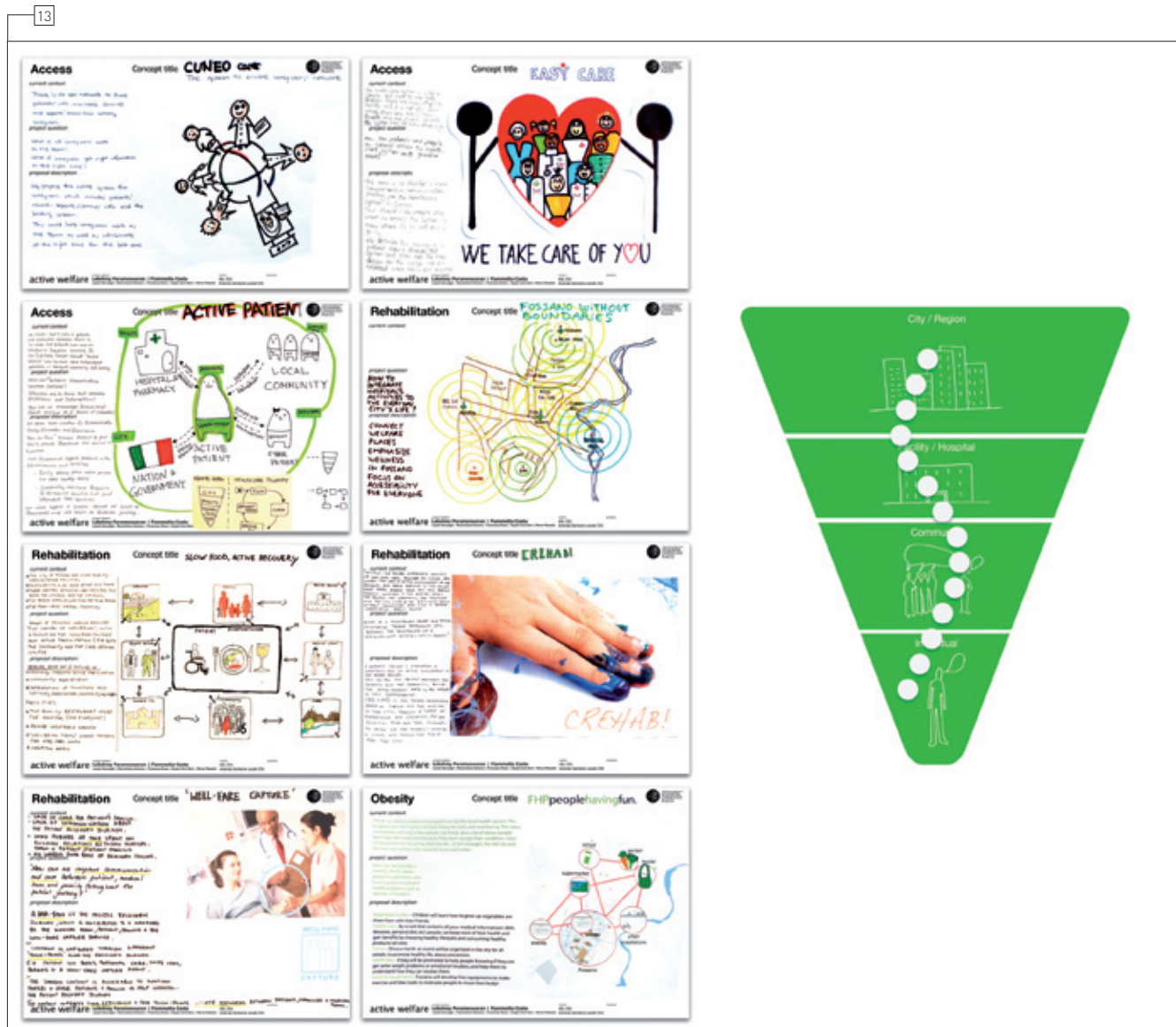
Seven future propositions were created and communicated through seven storylines –one for obesity and healthy living, three for rehabilitation care and three addressing access to care issues. Each story proposed a holistic care approach impacting the various levels of innovation from personal to regional. As the most important outcome of the workshop, the seven health stories worked together in synergy, providing a starting point for an overall regional innovation strategy for Cuneo's transforming healthcare system.

Conclusions

Considering the key challenges faced and the opportunities provided by this collaborative innovation project, the following are some of the main conclusions drawn about the innovation process and initial project results:



12. Teams were asked to prepare a ten-minute presentation for the client, clearly communicating the underlying local need their proposal addressed and visualising a future scenario for healthcare in Cuneo.



13. Storyboards were created to describe a future experience of healthcare in the local context and as seen through the eyes of the local stakeholders.

- The strategy to organize the workshop teams to gather different perspectives on the health topics through parallel local research activities, and then synthesize the results to form a multi-faceted whole, proved to be essential and effective, albeit logistically challenging! Making sure that teams have supportive guidelines to conduct research and a clear innovation framework to 'hang' their knowledge helped to achieve this. Sufficient time for logistics and planning is critical to this strategy when working with such a large team of over 30 designers.
- Working with a client team who had never worked with designers in a strategic collaboration meant that expectations were minimal. As a result the brief was initially specific to each of the health topics selected, however, taking a holistic approach the result was an extended brief that took into account the systemic changes at the heart of the client ambition for the new ASL CN1 healthcare service. As clients work closely with design in strategic projects, it is expected that the brief will evolve to reflect the potential of design for strategic initiatives.

On reviewing the final seven propositions, this client team were able to see their health issues from a new perspective and as an integrated whole beyond their specialist clinical areas. Thus revealing unforeseen such as the creation of a new healthcare brand throughout the region to facilitate the transformation towards a new health system for Cuneo.

- Researching healthcare in-depth requires preparation due to the often-sensitive populations and contexts under investigation. Planned improvisation is part of this preparation as well as a key element of the fieldwork, because healthcare is unpredictable and activities may change without notice. Research techniques and tools as well as designers skills need to be tuned accordingly. The principles of the research are important, the objectives too, but the means to reach those answers need to be flexible. The in-depth and time-consuming preparation phase enabled participants to go through all the steps of the innovation process in an extremely compressed amount of time, just six days, at an effective but challenging pace. With limited clinical and local knowledge, the teams were able to unwrap complexity and deliver viable solutions for the clients.
- The Active Welfare project offered a unique chance to combine an academic, commercial and social agenda, knowledge and skills to formulate an innovation opportunity. Time and patience for communication across disciplines and partners is essential to the success of such collaboration, ensuring sufficient time for exchange across locations and cultures, through different language translations both professional and international. The

benefit of such collaboration lies exactly in this diversity of perspectives and understanding, however managing a collaborative innovation process is a specific skill that innovation designers must develop further through such pilot projects.

Next steps

The seven stories create the solution space for the next stage of the project. A primary step is to present the initial results of this workshop phase to the client team and elicit feedback and align design recommendations with the client's overall strategic intentions. A round of evaluation sessions might then be planned with citizens, patients, families, clinical staff, hospital administrators and local stakeholders to elicit more detailed feedback and thus refine and focus selected concepts. A strategic workshop with the client team could then help define a next stage project plan, in which further research and design development activities could be defined to help in the transformation of Cuneo to a healthy region.

Acknowledgements

We would like to thank our local healthcare clients and their care teams in Fossano and Mondovi, our project partners at the Politecnico di Milano, TWDC 2008 Program Office in Turin and Bruce Mau Design Chicago, the international workshop participants and the local citizens of Cuneo for their commitment and enthusiasm to engage in this innovation project and help define a future vision for the health system of ASL CN1.